Pre hospital medical services and paramedic engagement in Australian health care – Improving the pathways of care through collaborative action

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“Integration of health care services helps to ensure that the care provided by EMS does not occur in isolation, and that positive effects are enhanced by linkage with other community health resources and integration within the health care system.

EMS provides out-of-facility medical care to those with perceived urgent needs. It is a component of the overall health care system. EMS delivers treatment as part of, or in combination with, systematic approaches intended to attenuate morbidity and mortality for specific patient subpopulations.”


Paramedics Australasia vision

Paramedics Australasia places a focus on forward-looking aspects in the delivery of pre hospital medicine and the facilitation of the paramedic’s health care role. Paramedics Australasia’s vision is for pre hospital medicine to be integrated with other health services so as to create a seamless system of care beginning at the point of need – the patient.

The paramedic practitioners and pre hospital medicine systems of the future thus should assure a rapid response providing appropriate levels of care to each patient presentation, thereby contributing a vital community resource for prevention, evaluation, care, triage, referral and advice.

Access to paramedic services should form an integral part of the care regime available to patients in an inter-professional model of healthcare practice founded on contributions from a dynamic mixture of professional staff at all stages of the patient journey.

Abstract

Paramedics Australasia (PA) is the national body representing paramedics engaged in delivery of pre hospital emergency health care. PA is thus uniquely positioned to provide insights into the role of pre hospital medicine in the continuum of care. Every day in Australia, patients are placed at risk of harm within the health-care system. These risks are particularly notable in pre hospital care where paramedics must often tend for patients under adverse operating conditions and perform interventions that carry significant risks. Paramedics must make clinical judgements that may profoundly affect patient outcomes – often with no access to patient history. Pre hospital medicine has changed dramatically in recent years. Paramedic practice has evolved as a unique discipline combining medicine, public health and public safety. Contemporary pre hospital medical care is now provided by professionally qualified practitioners. These developments have been built on a
strong evidence base demonstrating the capacity to enhance patient outcomes through appropriate clinical interventions. Paramedics and pre hospital service providers alike have had to overcome many challenges in this journey, not the least being the education, recruitment and retention of a professional workforce and the difficulties in funding the infrastructure upon which to build a comprehensive emergency response capability. The PA vision for pre hospital medicine is based on the premise that it is an essential part of primary health care and that its seamless integration into health care will better meet patient needs that might otherwise remain unfulfilled. Paramedics can provide a variety of community health services that are crucial in the provision of more comprehensive care, especially in rural and remote communities. PA has endorsed the philosophical approach to health care outlined in the 15 National Health and Hospitals Reform Commission Health Care Principles, and recommends the translation of those principles into the pre hospital medicine environment. Given those principles it is inexplicable how paramedics have remained unrecognised as health professionals and pre hospital medicine has been ignored as part of the health care reform process. Embracing the National Health and Hospitals Reform Commission principles should see pre hospital medicine forming not only part of the local health care system but also meshed into the fabric of the community. There should be community engagement in the assessment and evaluation of pre hospital medicine care and the regulation of practitioners under a national system of professional registration. These processes will better enable the benefits of holistic care to be realised. Despite the excellence and dedication of the paramedic workforce, PA recognises that formidable challenges remain in health care delivery. These include issues of equality and access, demographic coverage, safety and quality, as well as other workforce and resource issues that affect patient outcomes. Paramedics can assist in identifying and resolving many of these issues. Australia’s health system should provide suitably rapid pre hospital medical responses with levels of care appropriate to the circumstances of each patient. Paramedics moreover hold competencies that can provide prevention, evaluation, care, triage, referral and health advisory services that can be mobilised to enhance community healthcare resources. Access to professional paramedic services should thus form an integral part of the care regime available to the community. This should be an inter-professional model of healthcare practice founded on contributions from a dynamic mixture of professional expertise at all stages of the patient journey. In PA’s view, the virtual absence of references to the role and funding of paramedic services as a key component of the health care system at a national level is a grave oversight. A nationally driven policy perspective is needed that integrates pre hospital medicine into the health system. Fulfilling the PA vision of health care requires significant change in the way paramedic services are funded and administered. It will need advice from the best available minds and committed leadership within government and the health professions to bring the already demonstrated benefits of paramedic practice to the community. Many issues need to be addressed including: (a) Sustainable funding models under national access and equity principles; (b) Education, clinical training, staff recruitment and retention; (c) Safety and quality standards and the minimisation of patient risk; (d) Extended community care models in remote and low-volume settings; (e) Clinical governance, service accreditation and practitioner registration; (f) Adequacy of evidentiary data collection to assess patient outcomes, support service evaluation and underpin research; and (g) Infrastructure integration including communication networks and dynamic referral to manage external events and cope with capacity constraints. PA strongly believes that these issues cannot be considered in isolation. Pre hospital medicine practitioners must be involved in contributing their expertise in conjunction with other health professionals so as to create a seamless system of best practice care beginning at the point of need – the patient. To fulfill that promise PA has outlined a vision for the delivery of pre hospital medicine as part of an integrated health care system. Only by incorporating the input of paramedic clinicians into that national policy and operational arena can the best patient outcomes be achieved.

Keywords: Paramedic, Community, Pre-hospital, Inter-professional, Integrated healthcare

“...pre hospital medicine is seen and treated as a stand-alone public service like fire and police with little or no integration into the larger health care system at the local (e.g. rural health centers, visiting health/nursing services, preventive health services), or regional (hospitals and specialty centers) levels. The evolving concept of medical home services does not commonly envision pre hospital medicine as a participant…”

Joint Committee on Rural Emergency Care, US National Association of State EMS Officials and the National Organization of State Offices of Rural Health, Improving Access to EMS and Health Care in Rural Communities: A Strategic Plan, July, 2010
Paramedics Australasia

Paramedics Australasia (PA) is the peak professional body representing paramedics engaged in the delivery of pre hospital urgent medical care. PA has an abiding interest in policy matters that affect the access, equity, quality and effectiveness of paramedic services in the provision of pre hospital and emergency care in Australia.

PA activities encompass programs of professional development, voluntary regulation, publication and other professional activities designed to enhance the standards of pre hospital medicine and thereby better protect the health and safety of the community.

Paramedics have a unique perspective of patient needs and the service interface issues that commonly arise in both metropolitan and rural environments. The profession holds an in-depth knowledge of the vagaries of providing emergency care under real-life conditions and with varying infrastructure support levels.

Through its expert practitioner membership PA, therefore, articulates the views of the most significant group of practitioners engaged in pre hospital urgent medical care throughout Australia. These expert views need to be harnessed through suitable advisory mechanisms that will help guide the policies of government in health care delivery.

Paramedics Australasia philosophy of health care

PA has endorsed the basic principles for health care espoused by the National Health and Hospitals Reform Commission (NHHRC) [1]. In keeping with these principles, PA has articulated a vision for the delivery of paramedic services within the community.

Within this vision, the primary goal of PA is to help develop the full potential of pre hospital medicine as part of a health system that will deliver quality health care to all communities. Its activities thus foster policies and practices that will benefit patients through the integration of pre hospital medicine with other health care programs.

To achieve these objectives, PA believes that health care policy should:

• recognise the benefits of holistic care delivered by health professionals operating in a multidisciplinary/interprofessional practice environment;
• ensure an equitable health system by providing paramedic services for all according to need and regardless of race, creed, gender, location or economic circumstances;
• establish funding arrangements at Federal, State and Territory levels that facilitate the delivery of integrated health care services and minimise duplication of effort by optimising the use of available physical and human resources;
• ensure responsiveness, quality and high service standards through appropriate governance structures, including practitioner and community engagement that recognises the legitimate role of stakeholders in the planning and delivery of health care;
• provide adequate educational opportunities for the recruitment, training and professional development of paramedics that will ensure a competent and sustainable workforce; and
• provide a national regulatory regime for the accreditation of service providers and the independent registration of paramedics that together will ensure consistent service standards and public safety.

Paramedics zealously guard their status as Australia’s most trusted profession [2], and have embraced professional and ethical standards intended to ensure the maintenance of that position. As a profession they want to provide a level of patient care that ranks with world’s best practice.

Nonetheless PA notes that paramedic services (aka Ambulance Services) in several Australian jurisdictions have been subject to government inquiries because of perceived operational inadequacies or deficiencies in the recent past. Unfortunately the catalysts for many of these inquiries have been associated with managerial deficiencies [3–5] or public concern at provider responses [6] rather than being aligned with the health care system and patient outcomes under health care performance standards and indicators.

These inquiries show the need to examine a number of policy, governance and practice issues which to date have not been adequately addressed by the health reform process or captured within government datasets [7, 8].

The paucity of data related to pre hospital patient outcomes and the need to integrate information on the total patient...
journey has been confirmed through direct discussions with the Australian Institute of Health and Welfare (AIHW) [9]. More research is needed but will depend on proper recognition of pre hospital medicine as an integral component of healthcare.

Patient safety in pre hospital medicine is another issue that has been poorly studied and documented within Australia. The uncontrolled nature of much of pre hospital medicine delivery creates servicing challenges that increase the risks of adverse events. Even so, the available data is inadequate to hold significant opportunities for improvement. Collaborative action is needed to better identify pre hospital patient safety incidents and practices that affect overall patient outcomes.

PA is focussed on the need to facilitate the health care role of paramedics in the interests of the patient. It wants to see pre hospital medicine integrated with other health services so as to create a seamless system of care beginning at the point of need. Achievement of this level of integration will only be possible with the direct involvement of expert paramedic clinicians within the advisory, policy and operational governance framework of health care delivery.

Placing paramedic services into perspective

Australians rely heavily on paramedics and pre hospital medical service providers to respond to emergency and other medical incidents that occur away from established hospital emergency facilities.

The pre hospital medicine sector is significant in the Australian context, and the Australian Productivity Commission reports [10] that publicly funded Ambulance service organisations attended 3.3 million incidents nationally in 2012–2013 resulting in 4.1 million ambulance responses to attend to 3.2 million patients. Nationally the Commission notes that in 2012–2013 some 84.7% of hospital emergency department patients in triage category ‘resuscitation’ arrived by ambulance, air ambulance or helicopter service.

Total reported revenue of ambulance service organisations in Australia was $2.6 billion in 2012–2013. These figures do not include private paramedic service providers or defence–related commitments. Nationally, revenue (in real terms) increased each year from 2008–2009 to 2012–2013, with an average annual growth rate of 4.5% [11]. As a result of the varying funding arrangements ambulance service organisation air ambulance expenditure varies substantially across different jurisdictions.

These basic statistics show the significant impact of the pre hospital medicine sector, which at some stage or other will touch the life of nearly every person in the community. It graphically demonstrates the ubiquitous nature of pre hospital medicine and the need for close integration with the broader primary care and hospital health systems to achieve optimal patient outcomes. It underscores the concern of the profession at the present isolation of paramedic services from national health care policy which creates significantly different operating environments for pre hospital health service delivery across different jurisdictions.

While prevention and broader healthcare roles are embodied within the paramedic role descriptions and skill set [12], the popular perception of the paramedic role rarely reflects these elements. Community perceptions remain largely fixed on pre hospital medicine as consisting of an ambulance vehicle and its crew responding to an emergency and taking the patient to a hospital. Many policymakers hold similar perceptions of the roles and capabilities of the pre hospital medicine sector. One result is that key performance indicators consistently focus on physical response times and emergency performance indicators to the relative exclusion of other indicators of health care and patient outcomes.

It was disconcerting to find this lack of understanding of pre hospital medicine as recently as 2008 in the report prepared by the National Health and Hospitals Reform Commission [13] dealing with the Australian Health Care Agreements and performance benchmarks. The National Health and Hospitals Reform Commission document used the term “emergency” almost exclusively in the context of hospital based services, the word “ambulance” appeared twice referring to a transport vehicle and the term “paramedic” did not appear at all. That says much about the perceived role of public pre hospital medicine providers who handle over 3.3 million incidents annually!

Those role perceptions are a hangover from the early beginnings of pre hospital medicine based mainly on transport and emergency responses to public safety and life-threatening events. But the functions of pre hospital medicine have undergone a sea change. The role of paramedics has evolved swiftly.
until today they are seen as the primary practitioners in the delivery of advanced pre hospital emergency medical care.

The ‘silo mentality’ associated with healthcare policy and management has had other ramifications. Paramedic involvement in many cases has been limited to brief interactions with hospital emergency department staff, interaction with other hospital and community health facility staff during patient transfers and some educational and clinical training experiences. There is no doubt that patient outcomes have been compromised to an unquantified degree by the separation of pre hospital medicine from general health care and welfare support systems.

In rural settings the need for pre hospital services may be greater in the absence of more definitive hospital, clinic or medical resources. Paramedics may be the health care providers most likely to be called on for a variety of more routine health needs, and the more remote the community, the more important may be the provision of paramedic-delivered care.

Remoteness has other consequences including that pre hospital medicine has historically been carried out on a volunteer basis more so than most other health care roles in rural areas. There is limited control of volunteer standards. This in turn has marginalised the perceptions of pre hospital medicine and paramedic practice because of the challenges in gaining qualifications and maintaining paramedic competencies as a volunteer, developing sustainable career structures or establishing a professional identity and professional leadership.

The result is a common focus of paramedics on emergency care at a time when community paramedics should be available to fulfill a more widely defined role because local hospitals, general practitioners and other health services are inadequate or are being overwhelmed.

The demand for emergency services is unpredictable and generally driven by external events and, just as for medical practitioners, it may prove difficult to maintain a professional paramedic in areas of low emergency demand. One response to that dilemma would be the productive use of paramedics in primary community care and interdisciplinary practice to supplement available resources and complement other health care personnel and services.

The use of paramedics in an extended care mode can fill gaps in community health care needs while allowing paramedics to maintain their skills and being available to respond to emergencies for which they are uniquely qualified [14]. There is now an International Roundtable of Community Paramedicine (IRCP) that recognises a variety of such practices and systems around the world [15].

As the benefits of other models of care and appropriate interventions have come to be better recognised and supported by evidence-based practice [16, 17], educational and practice requirements likewise have expanded to keep pace with new procedures and advances in technology.

The professional preparation of paramedics now requires a university degree with on-going competency and continuing professional development requirements. Advanced level Masters and Doctoral programs in paramedicine are available from several Australian universities and specialised streams of practice have emerged, including moves to formalise the role of community paramedics by establishing specific training programs.

The rate of practice development in paramedic services has been more rapid than the legislature, governments, practitioners and related health professionals can absorb, with varying misconceptions still remaining about the care provided by paramedics. The result is a fragmented landscape for service delivery that may be summarised as follows:

- Funding arrangements vary between jurisdictions, but all government-sponsored providers rely in part or in whole on government funding obtained through a variety of mechanisms.
- Services may be free for residents of a given jurisdiction [18] or reimbursed under a user-pays principle [19] or recouped in whole or part by insurance [20]. Distinctions are also commonly made between emergency and non-emergency (transport) situations.
- Pre hospital medicine is notable for having a higher proportional contribution from volunteers than other health care sectors (excluding specific volunteer groups). The involvement of volunteers and uncontrolled service demands make the operational management of pre hospital medicine delivery far more complex and difficult than many other health services.
- A growing number of private operators service particular industry sectors. Independent emergency services are
subcontracted or maintained by major corporate entities e.g. mines, oil rigs etc. These ventures employ paramedics (and other health care professionals) outside the ambit of the traditional public sector service providers and are subject to varying regulatory constraints. Their health care contributions are not well captured in government datasets.

- Private sector agencies contract to Australian government departments and international agencies to provide pre hospital medicine care and consultancy services locally and overseas.
- Aeromedical services are provided by an array of public and private sector organisations – most notably by various community helicopter providers and the Royal Flying Doctor Service. In some cases the costs are captured in government statistics – in other cases they are not.
- The administration of pre hospital medicine varies from jurisdiction to jurisdiction – in some cases being a subset of an Emergency Services Agency [21] while in other cases they are a subset of a Health Department or they may be a private corporate entity contracted to government.
- There is no nationally accepted and independent framework for the accreditation of service providers. The public sector service environment is fragmented with autonomous jurisdictions operating independently and having different clinical practice guidelines, funding sources and operational metrics.
- There currently is no nationally accepted regulatory framework for defining the scope of practice or for the registration of paramedics. Paramedic practice stands apart from other health professions with practitioners credentialed by their respective employers.
- Legislative and operational constraints make it difficult for paramedics to move and retain their professional standing. Flow-on effects include the impacts on potential cross-border integration and operational issues, more difficult recruitment of personnel and restrictions on mobility and career development.
- There is no nationally recognised and independent framework mandating community engagement and general complaint mechanisms for either service providers or individual paramedic practitioners. Arrangements vary from jurisdiction to jurisdiction.
- Australian Defence Force medic personnel have no direct links to or comparable education and qualification standards with their civilian counterparts. One consequence is the potential loss of defence medics from the health workforce upon their retirement from the Australian Defence Force because there is no clear post-military career pathway, no portability of qualification and equivalence in status. Australian Defence Force medics cannot gain promotion in the military service without giving up their medic status and skills.
- Chronic paramedic staffing shortages are reported in several jurisdictions, which have led to continuing problems of service delays, absenteeism, stress-related illnesses, post-traumatic stress disorder, suicide, high staff attrition rates and industrial unrest. Long shifts are common resulting in paramedics working in an impaired state that is equivalent to being over the maximum allowable alcohol limit, and thus not considered safe to drive. It is therefore difficult to justify their providing treatment in such a state of impairment.
- Paramedic education is in a state of flux although clinical training and continuing professional development raises problems that are shared with other health professions. There is some evidence that paramedic service providers in some jurisdictions do not regard clinical placements as their “core business” and the provision of comprehensive internship programs is fraught with difficulty.

It should be clear from the foregoing summary that pre hospital medicine in Australia remains fragmented and isolated from the mainstream of health policy. Pre hospital medicine should not stand alone but be considered in the context of its role as (often) the first point of community contact for emergency primary health care.

**The omission of paramedic services from health care policy**

The 3.3 million incidents handled nationally in 2012–2013 show the significant impact of pre hospital medicine on the
Australian community. As a consequence, one might think that the provision of pre hospital medicine and the role of paramedic practitioners would figure prominently in national health care policy and reform.

That is not the case, and the almost total omission of paramedic services from the health care debate or recognition of paramedics as health professionals is a matter of continuing concern. From a public policy perspective it is inexplicable. The separation of paramedic service considerations from broader healthcare policy is both counterproductive and difficult to reconcile with the community perceptions that it forms a vital component of the healthcare system. It has resulted in a relative lack of accountability through the slow development of public reporting under health care oriented Key Performance Indicators (KPIs).

Reporting of pre hospital medicine should cover not only response times but also other indicators that deliver appropriate measures of quality and cost-effectiveness in health terms.

These performance-related deficiencies have been identified on several occasions, and in the 2009 Performance Audit Report of the Australian Capital Territory Ambulance Services it was noted that [22]:

"ACTAS did not have a sufficiently comprehensive performance management framework by which to manage and monitor performance of service delivery. This makes it difficult for management to fully assess, monitor and report on performance."

PA believes that pre hospital medicine should be funded and held to account no less rigorously than other health care practitioners and service providers.

The situation demands a more strategic and national vision that properly integrates paramedic services with the broader health care system and engages paramedic practitioners in optimising the pathways of care. In this way the health care system may move towards achieving an effortless interface between service platforms and treatment by relevant health professionals with the timely and accurate transfer of patients and information critical to optimal patient outcomes.

"It’s so horribly simplistic – it doesn’t involve technology, doesn’t involve enormous capital investment, doesn’t involve restructuring healthcare bottom to top, and doesn’t involve government legislation. What it does involve is profoundly courageous and powerful leaders, compassionate caregivers, and the fearless humility to admit when one is wrong”

John Lewis

Particular efforts therefore should be made to ensure a systems-oriented approach to healthcare delivery. Advice should be sought from knowledgeable persons drawn from the practising members of the professions that form the health care team (not just physicians) as well as educational and research institutions, professional groups such as PA and national health advocacy groups such as the Australian Health Care Reform Alliance (AHCRA) [23] in the determination of broader healthcare policy.

Learning from operational service delivery
A further example of the unique role of public sector pre hospital care is provided by the operational demands created by unscheduled service delivery and often uncontrolled conditions with the public expectation that every call for assistance will elicit a suitable response.

Paramedics often must triage and work in confined spaces under chaotic conditions that involve heightened personal risk and a variety of high level stressors. Emergency scenes are not a controlled environment like a clinic or hospital. Operating with limited time and medical resources, along with having to deal with both distraught family members and curious bystanders and in sometimes physically dangerous conditions can give rise to errors that cause patient harm and poor patient outcomes.

The best diagnostic, hospital and emergency facilities in the world are of little value if the patient is deceased on arrival.
It is undeniable that the interventions performed by paramedic are often what stabilise and keep patients alive until they can reach more definitive care.

These elements of operational practice are among the strong reasons why paramedics should be part of the health care governance and policy advisory team. Paramedics form a highly expert body of practitioners who can speak about the practical issues associated with the delivery of pre hospital emergency care from experience and with the benefit of available research.

**Clinical training of paramedic professionals**

The paramedic profession is conscious of the increasing demands to meet community expectations for consistently high quality care – both under the umbrella of traditional paramedic service providers and as practitioners operating within the wider industrial, Defence Force and community settings – especially in rural and remote locations.

Clinical training is an important part of practitioner development and PA is conscious of the impact of this training in ensuring public safety. Paramedics must be competent to execute complex and risky procedures within their scope of practice whenever the need arises. It is axiomatic that emerging practitioners should receive clinical training through placements that will ensure they can enter the workforce and exercise their skills at an appropriate level.

In its Discussion Paper of December 2008 the National Health Workforce Taskforce (NHWT) [24] raised a number of issues facing educational institutions and health services that provide clinical placements. It acknowledged the pressures placed on existing service providers by the growing demand for clinical placements as well as the diversity and at times, inconsistent processes involved in clinical placement activities. The paper noted that:

> "Clinical training is a significant part of health education and essential to the development of the requisite practical skills. Responsibility for this training is currently split between education providers and the health sector; however, there is no clear delineation of respective roles and obligations. There is also a significant gap in the knowledge of current training load, distribution of placements and health service capacity, and disparate funding arrangements across different health settings."

A starting point is to map what is currently known about clinical training activity and placement capacity in order to consolidate a national approach.”

In that context, clinical placement demands must be balanced across the broadest range of settings by taking into account:

- patient-focused care within suitable safety and quality frameworks;
- student needs including geographical, financial and family requirements;
- improved access through enhancing placement capacity;
- suitably comprehensive contributions from all stakeholders (including all tiers of government, employers, educational providers and professional associations);
- well-structured placements that offer true workplace mentoring and professional development and training experiences that facilitate communication, team work and learning; and
- effective supervision and clinical education pathways.

Reforms announced by the Council of Australian Governments (COAG) on 29 November 2008 provided funding for a number of health workforce initiatives including the training of health professionals, establishing more effective, streamlined and integrated clinical training arrangements, and investigating funding approaches and incentives to ensure clinical training is delivered in the most cost efficient manner.

COAG agreed to establish a new national agency to manage these initiatives. Health Workforce Australia (HWA) was established with a specific focus on implementing workforce reform, and operating across the health and education sectors, complementing jurisdictional responsibilities in health and being able to devise solutions that integrated workforce planning, policy and reform with complementary reforms to education and training.

It was envisaged that the agency would take a major role [25] in the planning, coordinating and funding of professional entry clinical training across all disciplines to ensure increased capacity while achieving quality, efficiency and
effectiveness in an integrated and educationally effective manner with support for planning, coordination and supervision at regional, local and health service levels. Other aspects were the development of new structural arrangements that would attach clinical training funding to students in whatever service setting they train, thus ensuring the training outcomes and enabling an expansion into non-traditional settings.

Those calls for further research and development of clinical training pathways formed key areas of work [26, 27] undertaken by HWA. This also included five 2 year pilot studies [28] of an Extended Care Paramedic (ECP) role, designed to meet local community needs and conditions. The ECP role was able to liaise with general medical practice to fill gaps in primary healthcare delivery, especially in rural and regional settings.

General practitioners, aged care facilities, palliative care teams and community nursing were supportive of the initiative and appreciative of the quality and timeliness of the service offered while a following national consumer survey demonstrated that:

- 88% of respondents would feel comfortable being treated at home by an ECP
- 90% of respondents would be comfortable for an ECP referral to a GP for follow-up care

Although the program was highly successful, system change is required to ensure that funding streams can be identified to ensure ECPs can be used as part of an integrated primary healthcare team in the future. As a result of these studies and other overseas experience, PA supports policy moves directed towards holistic and integrated multi-disciplinary care with expanded career pathways and inter-professional learning opportunities.

While PA has welcomed these proposals for enhanced workforce studies, clinical training opportunities, improved data collection and other initiatives sponsored by HWA, the future of these programs is uncertain, given that the HWA closed on 6 August 2014 as a result of the Australian Government’s 2014 Budget which transferred its essential functions to the Australian Government Department of Health.

To minimise doubt and foster further progress, paramedics need to be engaged in the on-going policy discussions and provide input for such developments which affect all health and allied health professions. This may be done through various consultative mechanisms and through direct involvement in the policy-setting bodies.

**Funding and resource allocation**

There is no doubt that funding and resource constraints will continue to play a pivotal role in determining the future of paramedic services and out of hospital health care. Successive reviews over several years have identified funding as a key issue [29] while research has suggested a number of options for reforming Australian funding systems [30].

Currently there is no uniform approach to funding, access, and administration of pre hospital emergency medical care in Australia [31]. Funding arrangements vary between jurisdictions with a combination of direct state or territory revenues, subscription schemes, insurance and user charges [32].

The limited recognition of the role of pre hospital medicine as a key component of the health care system raises the strong likelihood that the capacity of paramedics and the pre hospital medicine system to deliver better and more equitable health care will not be given adequate attention in determining national health care policies and priorities, funding and governance arrangements.

The Australian Institute for Primary Care has noted [33]:

> Australia does not have a nationally consistent approach to the funding and delivery of Ambulance services. There are significant risks to the medium and long-term capacity of Ambulance services to meet demand pressures. There are, however, significant opportunities to introduce a national reform program to improve the sustainability and performance of Ambulance services. This program should involve development of an equitable activity based funding model, backed by agreement on a national system of funding. For example, imposition of an additional Medicare levy component of 0.3% would provide sufficient funds for all Australian Ambulance services, at a cost of about $3.30 per week for a person on average all-time weekly earnings.

It is difficult to see any reason why paramedic services should remain outside the shared funding arrangements between the Commonwealth and the states and territories given that any policy covering the delivery of health care at a community level
is likely to have significant impacts on both service providers and paramedic practitioners.

Emergency events hold no respect for jurisdictional boundaries and the consideration of funding issues is yet another area where a national focus is needed with informed input from the paramedic profession.

Practical responses to achieve paramedic services integration

There is firm evidence that advanced pre hospital emergency care can significantly affect morbidity/mortality outcomes. Similarly there is no doubt that the paramedic profession carries a particularly deep understanding of emergency medicine which provides insights into best practices in the field.

In addition, skills in preventive care and assembling a potential differential diagnosis, the management of patients with mental health problems or drug impairment, and the provision of care for those in long-term facilities all fall within the scope of today’s professional paramedic skill set. As often the first persons to treat people in distress, paramedics are acutely aware of the impact of demographic changes, community expectations and changing health needs, with a growing population of elderly patients and more people living with chronic disease.

These factors are driving changes in health care demand and the reality is that the majority of paramedic services in Australia are already based around non-acute care. The bonus is that pilot studies in Australia have shown that extended care paramedic practice is cost effective, safe and welcomed by the community. Numerous international studies also confirm that suitable community paramedic programs can bring substantial benefits to primary health care delivery.

Other models of care such as paramedic triage on the scene and referral pathways rather than transport to emergency departments have shown cost benefits as well as reducing the load on hospital emergency facilities. With these changes in focus has come the need for a growing sophistication of performance metrics that focus on health outcomes.

Freed of perceptions that pre hospital medicine is primarily linked to a reactive transport role, service models should be considered from the perspective of how best to support paramedic practitioners in providing optimal pathways of care.

Considering pre hospital medicine within the context of health care outcomes will enable better policy development and assessment of equity, funding and cost-effectiveness under a regime of relevant data collection and performance indicators.

It is not clear how best to achieve this desired integration of paramedic services with existing hospital and medical systems. Service providers will play a crucial role in any process of change and effective reform must be a mutual endeavour within a complex mixture of established communications, physical infrastructure and inter-professional practice. The challenge is to replace the driving force for health reform and cost-effective care given the demise of the HWA as a powerful focus for change and agency of review.

One of the key elements for change will be improved dissemination of the insights gleaned from evidence-based research so the benefits of innovative models of paramedic services will become better recognised for the lower acuity, non-acute, planned care just as they are noted for their high acuity, acute, emergency care. The unique body of knowledge arising from pre hospital practice and research must be mobilised by drawing on the expertise of the professional paramedic workforce to inform other health care professionals, administrators and policy makers in developing operational and clinical practices across the full range of patient settings.

Achieving these objectives will require truly integrated research, reflective evaluation and consultation processes well beyond the current levels of engagement between pre hospital medicine and other areas of healthcare.

Paramedic practitioners therefore must become more engaged in policy deliberations and participate effectively in multidisciplinary teams to provide the shared information and transparency that will ensure informed decisions in dealing with complex and changing health needs and the development of other health service options.

Recognising the existence of a problem is often the first step in its solution. In this regard a simple but fundamental shift in attitude is needed from which subsequent actions will flow. As part of that new paradigm PA has strongly recommended that:

*The State and Federal governments designate pre hospital medicine as a significant and integral component of health care with funding and other policy matters considered within the context of the delivery of a primary health care service.*
From this commitment and as part of government’s broad accountability to the community, the Commonwealth, States and Territories must then act to ensure a base stream of national funding that will ensure equitable access to pre-hospital medicine within a health system that delivers high quality patient care in a cost effective manner.

Glossary

The following terms are used in this paper.

AIHW Australian Institute of Health and Welfare
ANZSIC Australian and New Zealand Standard Industry Classifications
COAG Council of Australian Governments
EMS Emergency Medical Services
HWA Health Workforce Australia
IRCP International Roundtable of Community Paramedicine
KPI Key Performance Indicator
NHHRC National Health and Hospitals Reform Commission
NHWT National Health Workforce Taskforce
NHTSA National Highway Traffic Safety Administration (U.S. Department of Transportation).
Paramedic A professional person whose education, training and skills enable them to provide a range of pre-hospital emergency procedures and medical care

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